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# MATERIAL SAFETY DATA SHEET L-ARGININE HYDROCHLORIDE

## 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1	Product identifier	
	Product	: L-Arginine Hydrochloride
	Synonym	: 2-Amino-5-guanidinovaleric acid monohydrochloride
1.2	2 Relevant identified uses of the substance or mixture and uses advised against	
	Identified uses	: Nutritional supplements
1.3	Details of the supplier of the safety data sheet	
	Manufacturer	: PT. Cheil Jedang Indonesia
		Jl. Raya Brantas Km 3,5 Jatigedong – Ploso
		Jombang 61453 - Jawa Timur - Indonesia
1.4	Emergency telephone number	
	Technical Phone	: +62-21-5299 5000
	Emergency Phone	: +62-321-887700

#### 2. Hazard Identification

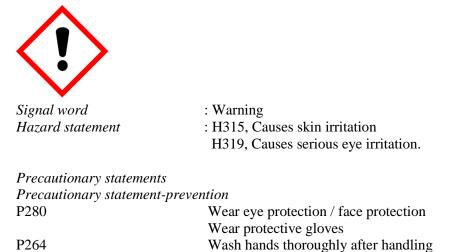
2.1 Classification of the substance or mixture Classification according to Regulation (EC) no. 1272/2008

Classification acc. To GHS			
Section	Hazard Class	Hazard class and category	Hazard Statement
3.2	Skin irritation	2	H315
3.3	Serious eye damage/eye irritation	2A	H319

#### 2.2 Label elements

Labeling according to Regulation (EC) no. 1272/2008

Hazard pictograms



Precautionary statements-response P305 + P351 + P338If in eye: Rinse cautiously with water for several minutes, remove contact lenses (if present and easy to do) and continue rinsing. P302 +P352 If on skin : wash with plenty of water If eye irritation persists : Get medical advice/attention P337 + P313If skin irritation occurs : Get medical advice/attention P332 + P3132.3 Other hazards

No Information available

## 3. Composition / Information on Ingredients

3.1 Composition : L-Arginine Hydrochloride 3.2 *Chemical Family* : Amino Acid (Essential) 3.3 Formula :  $C_6H_{14}N_4O_2$ . HCl 3.4 Molecular Weight : 210.66 g/mol 3.5 % by weight : >99.0% 3.6 Structure Formula • NH OH • HCI 3.7 CAS No. : 1119-34-2 3.8 EINECS No. : 214-275-1

## 4. First aid measures

4.1	Description of first aid measures	
	General recommendation	: Avoid contact
	After inhalation	: Remove individual to fresh air
	After skin contact	: Wash area thoroughly with soap and plenty of water.
		Get medical attention if irritant develops.
	After eye contact	: Flush eyes with water for at least 15 minutes
		If irritant occurs consult physician or immediately call in ophthalmologist
	After swallowing	: Wash out mouth with water, immediately make victim drink water (two glasses at most), If symptoms persist consult medical personnel

- 4.2 Most important symptom and effect, both acute and delayed Irritation and corrosion
- 4.3 Indication of immediate medical attention and special treatment needed No information available

## 5. Fire fighting measures

5.1 Extinguishing media Suitable extinguishing media Water spray, carbon dioxide (CO2), chemical foam, dry chemical, alcohol-resistant foam

Unsuitable extinguishing media No information available

- 5.2 Special hazards arising from the substance or mixture Combustible material and development of hazardous combustion gases or vapors possible in the event of fire
- 5.3 Advice for firefighter Special Fire Fighting Procedure Further information
- : Should wear protective clothing and respiratory protection
- : knock down gases/vapors/mists with water spray jet

#### 6. Accidental release measures

- 6.1 Personal precaution, proactive equipment and emergency procedures Avoid dust formation and inhalation of dust, avoid substance contact, and ensure adequate ventilation
- 6.2 Environmental precaution Do not let product enter drains
- 6.3 Methods and materials for contaminant and cleaning up Sweep up and shovel, keep in suitable and closed containers for disposal, do not let this chemical enter the environment and avoid generation of dusts
- 6.4 Reference to other sections *See section 13*

## 7. Handling & storage

8.2

- 7.1 Precaution for safe handling Avoid contact with skin and eyes, do not breath dust, vapors or spray mist, do not ingest. Use with appropriate ventilation, chemicals resistant gloves, and eye protection.
- 7.2 Condition for safe storage, including any incompatibilities Keep container dry and tightly closed. Store at room temperature and in a well-ventilated place. Keep away from heat and oxidizing agents.
- 7.3 Specific end uses(s) As mentioned in section 1.2

#### 8. Exposure control and personal protection

8.1 Control parameters *This product does not contain any substance with occupational exposure limit value.* 

Exposure controls	
8.2.1 Engineering measures	: Provide adequate mechanical ventilation to avoid dust generation, especially in confined areas and appropriate working operations should be given priority over the use of personal protective equipment.
8.2.2 Individual protection measured	ire
8.2.2.1 Hygiene measure	: Change contaminated clothing, preventive skin protection recommended, wash hands after working with substance
8.2.2.2 Eye/face protection	: Wear appropriate eye protection to avoid potential direct eye contact (safety glasses)
8.2.2.3 Hand protection	: Wear appropriate protective gloves
8.2.2.4 Skin & body protection	: Wear appropriate protective gloves and clothing to protect against skin exposure
8.2.2.5 Respiratory protection	: Required when dusts are generated, recommended to follow the OSHA respiratory regulation found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritant or other symptoms are experienced.

#### 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

: White crystalline powder and odorless
: 210.66 g/mol
: 4.7~6.2 at 25°C (77°F), 10% Solution
: 1.601
: 409.1 °C (794°F) at 760 mmHg
$226 - 230^{\circ}C(464.4 - 471.6^{\circ}F)$
: 201.2°C (419.8°F)

	MIE(Minimum Ignition Energy)	:>1000mJ
	P max	: 6.6 barg
	K st	: 45 bar.m/sec
	Explosion class	: St1
	Solubility in Water at $20^{\circ}C$	: Soluble in water (900g/L), sparingly soluble in alcohol
	Enthalpy of Vaporization	: 72.55 kJ/mol
	Evaporation Rate	: None
9.2	Other information	
	Bulk Density	: 0.55- 0.72 g/ml

#### **10. Stability and reactivity**

- 10.1 Reactivity Reacts with strong oxidizers
- 10.2 Chemical Stability Stable under recommended storage condition
- 10.3 Possibility of hazardous reactions Strong oxidizers
- 10.4 Conditions to avoid Exposure to light, exposure to moist air or water and strong heating (decomposition)
- 10.5 Incompatible materials Strong oxidizers
- 10.6 Hazardous decomposition product Carbon monoxide, carbon dioxide, nitrogen oxide and in the event of fire as mentioned in section 5

#### 11. Toxicology

11.1	Information on toxicological effect		
	Acute toxicity		
	Product Information	: No acute toxicity information is available for this product	
	Chronic exposure		
	Carcinogenicity	: There are no known carcinogenic chemicals in this product	
	Irradiation & corrosion	: Not Available	
	Mutagenic effect	: Not Available	
	Sensitization	: Not Available	

Sign and symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.2 Further information

This is a semi-essential amino acid which is frequently found in natural protein

#### **12. Ecology**

- 12.1 Toxicity Not toxic for wild animals and plants
- 12.2 Persistence and degradabilitye *High bio degradable*
- 12.3 Bioaccumulative potential *No information available*
- 12.4 Mobility in soil No information available
- 12.5 Result of PBT and vPvB assessment *PBT/vPvB assessment not available as chemical safety assessment not required/not conducted*
- 12.6 Other adverse effect We do not have quantitative data concerning the ecological effects of this product

### 13. Disposal Considerations

13.1 Waste water method

Recover if possible. In so doing, comply with the local and national regulations currently in force. Leave chemicals in original containers. No mixing with other waste. Empty container should be taken to local recycle for disposal.

14. Transports	s information
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Arginine Hydrochloride
red in closed and sealed container
1 : By ship
: : By airplane
kg double P.E. tube bags with silica-gel in fiber drum
1

No classified as dangerous in the meaning of transport regulations

#### 15. Regulatory information

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

TSCA	: CAS #1119-34-2 is listed on inventory.
SARA	: Section 302(RQ)-No-RQ listed.
	Section 302(TPQ)-No-TPQ listed.
CERCLA	: Not listed.
Clean Water Act	: Not listed as hazardous under clean water act.
Clean Air Act	: Not listed as a hazardous air pollutant

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## 16. Other information

Last updated date : 10 February 2021

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